

Paint 2000

Paint 2000

Introduction

Amazing graphics - One of the main reasons for buying an Amiga in the first place. *Amiga 2000 Professional* provides an easy, yet powerful way to jump right in and start creating pictures on your Amiga. Simple to learn, *Paint 2000* lets you 'paint' pictures in amazing detail with your Amiga mouse.

Getting started

To start, move the pointer onto the *Paint 2000* icon and double-click the left mouse button. In a few moments the *Paint 2000* screen will appear. Two of *Paint 2000*'s three elements are visible immediately: the *Tool* Window and the *Color* window.

The other element - the *Project* menu - is hidden from view.

Down the side of the screen there is a narrow window showing a selection of the 'tools' that you can use. This is the *Tool* Window. It can be moved around the work area with the drag bar, and hidden from view with the *Close* gadget.

In the bottom corner of the screen there is a window with a solid bar and a number of boxes in various colors. This is the *Color* Window, where you select and modify the color you will use. The *Color* Window can be moved and hidden in the same manner as the *Tool* Window.

There is one other list of options. Called the *Project* menu, it

includes options to save and load pictures on disk, show the tool and color windows when they are hidden, and exit the *Paint 2000* program.

Tutorial

Getting ready

To prepare for this tutorial, load *Paint 2000* from Workbench (by double-clicking its icon) or from the CLI command line as described in the *Getting Started* section. All set? Take mouse in hand, then, and we'll start out on a whirlwind tour of *Paint 2000*.

Freehand drawing

This is the simplest of the available drawing tools.

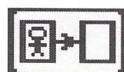
- Move the pointer to the *Freehand* tool and click the left mouse button. This is called *selecting* a tool.
- Move the pointer to the drawing area and, while holding down the left mouse button, draw an image.



NOTE: The *Freehand* tool offers two modes of operation. If you click on the top half of the gadget, you will draw in dots. The bottom half draws a continuous curve.

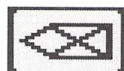
Clearing the drawing area

To clear the drawing area, click on the *Clear Screen* gadget located at the bottom of the *Tool Window*.



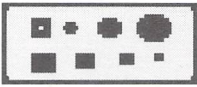
Correcting errors

If you make a mistake while drawing, just click on the *Undo* tool. The last action will be undone.



Changing colors

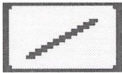
You can select different colors from the on-screen *Color Window*. To do this, simply move the pointer to the desired color and click the left mouse button. The current color is denoted by the big rectangle above the color squares.



Changing brushes

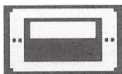
To change the width and style of your brush, click on one of the eight brush types located at the top of the *Tool Window*.

- Select the largest of the circular brushes from the set.
- Now when you move to the work area, the selected brush will be displayed under the cross hairs. Everything you draw will be drawn in this style.



Drawing lines

- Select the *Straight Line* tool located under the *Freehand* gadget.
- Move the pointer to where you want the line to start. Holding down the left button, move the pointer to where you want the line to end.
- Now release the button.



Drawing boxes

- Select the *Box* tool located under the *Straight Line* gadget.
- Move the pointer to where you want one corner to start. Holding down the left button, move the pointer to where you want the opposite corner.
- Now release the button.

NOTE: The *Box* tool offers two modes of operation. If you click on the top half of the gadget, you will draw an empty box. The bottom half draws a filled box.



Drawing circles

- Select the *Circle* tool located beside the *Box* gadget.
- Move the pointer to where you want the center of the circle. Holding down the left button, move the pointer away from the center.
- Now release the button.

NOTE: The *Circle* tool offers two modes of operation. If you click on the top half of the gadget, you will draw an empty circle. The bottom half draws a filled circle.

Filling areas

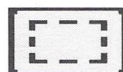
- To fill an enclosed area (with no breaks in the surrounding lines) select the *Fill* tool. This is located directly below the *Box* gadget.
- Move the pointer to anywhere inside the area and click the left mouse button. This will fill the area with the currently selected shade.



Custom brushes

In addition to the eight predefined brushes, you can turn any portion of your drawing into a custom brush and then draw with it.

- To create a rectangular custom brush, click once on the *Make Brush* tool.
- Move the pointer to one corner of the area. Holding down the left button, move the pointer to the opposite corner.
- When you have enclosed the area that you wish to make into a brush, just release the button. You have now created a custom brush.



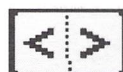
Any figure you now draw will be drawn with this brush. When you are finished with the brush, just select one of the eight predefined ones, or create another custom brush.

You can also create irregularly shaped brushes, rotate or flip brushes, and save or load them from disk.

Magnifying your work

For detail work, you may wish to magnify your picture.

- Select the *Magnify* tool (this looks like a magnifying glass).
- When you move to the drawing area, you will see a rectangle following the pointer. Place the rectangle over the area you wish to magnify and click the left mouse button.
- The screen will now show the magnified image, with the original picture shown in a little window. You can now add detail to your picture by drawing with the mouse.
- To magnify a different area of the drawing, move the pointer inside the little window and, while holding down the left mouse button, move the mouse until the required area appears in the little window. Now release the button.
- You can increase or decrease the level of magnification by clicking on the *Zoom* tool located beside the *Magnify* gadget.
- To turn off magnification, click on the *Magnify* Tool again.



Saving your work

- If you have a system with one disk drive, remove the *Paint 2000* disk and insert a blank data disk in the drive.
- Select the *Save Picture* option from the *Project* menu. This will bring up the *File Requester*. If any messages come up requesting the Workbench disk or the *Paint 2000* disk, just click on the *CANCEL* gadget with the left mouse button. This may happen more than once.
- Now click on the gadget marked DF0: in the requester. This will cause the computer to read the contents of the disk in drive DF0: and display them on the screen.
- Move the pointer to the text box beside the word "File", and click the left button. Type the name under which you want your work saved.
- Click on the *OK* gadget located at the bottom left of the requester. Your work will now be saved.

Exiting from Paint 2000

To leave *Paint 2000*, select the *Exit* option from the *Project* menu at the top left of the screen.

Tools

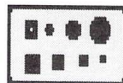
The tools that you will use when working with *Paint 2000* are available in two windows: the *Tool* window, discussed immediately below, and the *Color* window, which we will turn to towards the end of this section.

The Tool Window

All the tools available for painting and writing on screen are shown in this vertical window.

Built-in Brushes

There are 8 built-in brushes: four round brushes, starting with a very small circle brush for detailed work, and four square brushes sized from small to large. When *Paint 2000* is loaded, the smallest circle brush is automatically selected for you. To change brushes, move the pointer to the new brush and click the left mouse button once. After you have chosen a brush, move the pointer back to the main painting area. The new brush can be seen at the center of the crosshairs that form the pointer. To begin your painting: press and hold the left mouse button while moving the pointer around the screen.

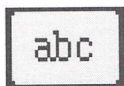


Freehand Draw Tool

This icon has two halves. When you click on the upper half, the dotted-line freehand mode is selected. Drawing in this mode, the



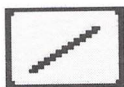
brush leaves a trail of dots across the screen rather than a solid, unbroken line. The faster you go, the farther apart the dots will be. Click on the bottom half of the icon to select the continuous-line freehand mode. Continuous-line means that there will be no breaks in the lines that you draw. If you go too fast, the program may take a few moments to catch up, so just slow down a bit.



Text Mode

When you click on this icon a box will appear with space in which you can type, using the Amiga keyboard, up to 64 characters. If you make a typing mistake use the arrow keys to move back and forth in the text area and the backspace and delete keys to erase mistakes. When you finish typing, move the pointer to the *OK* rectangle and click. Your brush will now be whatever you typed. If you change your mind while typing, move the pointer to the *Cancel* box and click. Once you have defined your text, it can be moved anywhere on the screen. Click the left mouse button once to stamp your text onto your computer canvas. You can paint with the words as with any other brush. (You can also try different text fonts by using the *Change Text Font* option in the *Project* menu, described below).

No matter what font you have selected the standard font will be used in the text entry box; your chosen font is used when the text is drawn onto the page after you select *OK*.



Straight Line Mode

Use this mode to draw perfectly straight lines. Click on the *Straight Line* icon. Then move the brush to where you want the line to start. Press and hold the left mouse button. Then move the brush to where you want the line to end, and release the button. While you move the mouse you will see how the line will look, but it will only be drawn when you release the button.

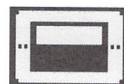


Airbrush Tool

Select this icon to paint with an 'airbrush' effect. Press and hold the left mouse button in the painting area and whatever brush you have selected will be sprayed onto the screen like drops of paint. The longer you hold down the button without moving the mouse, the thicker the result will be. You can, of course, move the mouse while spraying in order to create interesting effects or to blend areas of different shades. While the *Airbrush* tool is selected, the size of the Airbrush can be altered by pressing the + and - keys. There are 6 sizes of Airbrush.

Box Tool

This *Box* icon is split into upper and lower halves. The upper half is used to draw outlined or unfilled boxes while the lower half is used to draw a boxes that are filled with the currently-selected shade. After selecting either the top or bottom half of the icon, place the brush where you wish to start one corner of the box. Press and hold the left mouse button, and move the mouse until the box is the size and shape you wish, then release the button. Move left or right to make the box wider or thinner, move up or down to make it taller or shorter. While you move the mouse you will see how the box will look but it will only be drawn when you release the button.



Circle Tool

Similar to the *Box* tool, the *Circle* tool lets you create filled or unfilled circles. Select the top half for un-filled circles or the bottom half for filled circles. Place the brush where you want the center of the circle to be, press and hold the left mouse button, move the mouse until the circle is the right shape and size, then release the button to draw the circle. By stretching the circle horizontally or vertically, you can create ellipses. Again, you will see an outline of the circle while you move the mouse but it won't be drawn until you release the button.



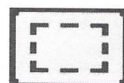
Fill Tool

This is an easy way to paint without going over the lines. Select this tool, move the pointer to an enclosed area, and click the left button once. The area will be filled with the currently selected shade. If the area you want to fill is not completely enclosed, the paint may spill over onto other areas of the screen. If this happens click on the Undo tool (see below), go back and close up any holes, then try again. The fill tool is also a good way to create a new background shade for the screen.

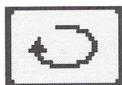


Make Brush Tool

This tool lets you pick up an area of your picture and turn it into a custom brush. Click once on the *Make Brush Tool* icon and it will act just like the *Box* tool. Move the pointer to one corner of the area you want to make into a custom brush, press and hold the left mouse button, move the mouse until the box surrounds the object, let go of the button and your new brush will be made. You can now paint lines, airbrush, draw boxes, draw circles, or use the new brush like a rubber stamp to make copies of objects.

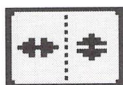


If the object you want to pick up is of an irregular shape, wedged between other objects, click on the brush tool twice. The tool will change shape from a perfect square to a square which has one side pushed in. Now move the pointer to a corner of the object you wish to pick up, click the left mouse button, move the mouse, and a line will follow the pointer. Click the left mouse button again and move the pointer. Now you will see an "elastic band" triangle in which the pointer becomes the third point. Each time you click the left mouse button, another corner of the "elastic band" is tacked down. With careful mouse movements and clicks you should be able to outline your custom brush no matter what shape it is. When the object is surrounded double click the left mouse button. It should be noted that large brushes or detailed shapes use a lot of memory. A message will appear to warn you if your Amiga doesn't have enough memory. There are a few ways to get around this. First try making a smaller brush, or if you are using the irregular shape brush tool, try using the regular box brush tool instead. If memory limitations won't allow you to create the desired brush, try taking half of the object at a time.



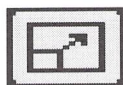
Rotate Brush Tool

When you start, this icon will be slightly shaded or 'ghosted'. It cannot be used until you create a custom brush. This tool lets you rotate a brush (or text) to any angle around a center point. Click on the *Rotate* tool and move back to the screen. When you press and hold down the left mouse button a box outline will appear of approximately the same size and shape as your brush or text. Keep holding the button and move the mouse - you will see the box turning. When you release the button your brush will be redrawn with its new twist. Note: this process may take a few seconds.



Flip Brush Tool

Two tools in one, the *Flip Brush* tool lets you make a mirror image of a brush by switching left for right (and vice versa) or up for down. Again, until you have created a custom brush or are using text this option will be unavailable for use. Click the left side of the tool once and your brush will automatically be flipped from side to side. Click on the right side of the icon and your brush will be flipped upside down.



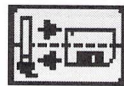
Size Brush Tool

This tool allows you to change the size and shape of a brush. Until you have created a custom brush or are using text this option will be ghosted. Click on it once and then move to the screen. Like the

Rotate Brush, press and hold the left mouse button. A box outline about the same size and shape of your brush or text will appear. When you move the mouse you will see the size and shape of the box change. When you release the button, your brush will be redrawn to this new shape.

Save/Load Brush Tool

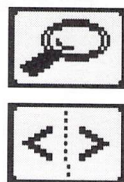
This icon has upper and lower halves. If you are currently painting with a custom brush, and you want to save it to disk: click on the upper section of this tool.



To load a previously saved brush, click on the bottom half of the tool. After selecting the file from the *File* requester, another requester will appear asking if you want to use the palette of the brush. If you saved a brush from one picture, and load it into another, the palettes may differ. To use the palette of the picture the brush was originally cut from, choose *OK* on the requester, otherwise, choose *Cancel*.

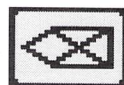
Magnify Tool

This is a useful for detailed work. This tool magnifies a portion of the screen to allow you to make fine touch-ups and modifications. Click on the tool once and then move to the screen. A 'magnifying box' will appear as your pointer. You can change the size of this box by using the *Zoom* Tool: click on the left side to enlarge it, the right to shrink it. Move the box to the area you want to magnify and click the left mouse button. The screen will change after a few moments to give you a magnified view of the area which you outlined with the box. In the lower portion of the screen is a window showing a portion of the unmagnified image corresponding to the area magnified. If you wish to move to another area of the screen, click down and drag on the unmagnified image to change the currently viewed portion of your picture. When you release the button the screen will be redrawn and your new area magnified. On the magnified portion of the screen you can edit the image, and work on fine details. When you are finished working in the magnified view click on the magnify tool again and the screen will return to normal.

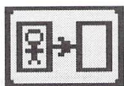


Undo Tool

This may be the most valuable tool at your disposal. It allows you to back up one step and to erase the last thing that you did. Click on it once and your screen will return to the way it was before you made that mistake. Be warned, however, that this will only undo



the very last thing that you did. So, if you make a mistake on your drawing, click on the *Undo* Tool right away. *Note: Undo does not work when the image is magnified.*



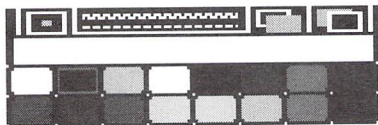
Clear Screen Tool

Click on this tool once and your entire picture will be erased, and you will be ready to start again. If, you decide it wasn't a good idea to erase everything, however, click on the *Undo* Tool right away.

The best way to learn about each of these features is to experiment with them. Save often; if you make a mistake, you can always reload your picture.

The Color Window

The *Color* Window is used to select the color with which you will draw. You will see 16 colored boxes on the bottom of the *Color*

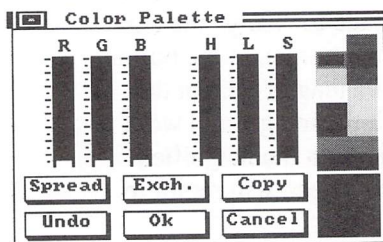


Window, containing a selection of different colors. Choosing one is simply a matter of pointing at the shade you want and clicking the left mouse button. The bar near the top of the window will change to

show you which color is activated. The *Color* Window can be moved around the screen if it is blocking any part of the drawing on which you wish to work. To hide the window temporarily, click on the *Close* gadget. To reactivate the *Color* Window when hidden, use the *Show Color* Window option on the *Project* Menu.

The Palette Window

The Amiga has 4096 different colors and *Paint 2000* allows you to use any of them, 2, 4, 8, 16 or 32 at a time. Click on the colored



bar located near the top of the *Color* Window and the *Palette* Window will appear. In the *Palette* Window there are 16 colors lined up on the right edge, six vertical bars in the center marked "R,G,B" and "H,L,S", six boxes along the bottom marked "Spread, Exch., Copy" and "Undo, OK, Cancel", and finally, at the bottom right, a box showing the currently selected color.

Starting from the left, the first three vertical bars, called sliders, are marked "R,G,B" and allow you to adjust the Red, Green and Blue content of the currently selected color. For example, black (the de-

fault color when you start *Paint 2000*) would have the R,G,B markers located at the bottom, and blue would have the blue marker at the top and the red and green markers at the bottom. To change the red, green or blue content of a color, point at the marker in a slider, press and hold the left mouse button and move the mouse up and down. You will see the color box, located at the bottom right of the window (and anything on your drawing that was painted in that color) change as you slide the marker up and down. If you don't like the result, click on the *Undo* box at the lower left of the screen.

The next three sliders, marked "H,L,S" allow you to adjust the Hue, Luminosity, and Saturation of the color. The hue of a color refers to its position in the spectrum. The spectrum offered in *Paint 2000* ranges from red to blue. The in-between shades are organized in the same order as the bands of color in a rainbow. Luminance refers to the amount of light in a color. When the slider is all the way up the light will as white, when it is all the way down the light will be black. Saturation refers to the amount of pure color. For example, a red hue that is fully saturated appears very bright and vivid, and could be made duller and darker by lowering the saturation.

The box marked Spread at the bottom left of the *Palette* window allows you to create a range between two colors. For example, if you want to use several shades of brown, click on the darkest brown color box at the top right side of the window, then click on Spread, and then click on the white color at the bottom of that row. The program will change all the colors between those two colors into different shades of brown. If you did a spread between black and white you would get a selection of grays.

Exch. is used to exchange two colors. This makes it easier to move colors around on your palette. Click on one color, then on the Exch. box and then click on the color with which you want to change places. This is useful when you want a range of greens but still want to retain some blue, red and brown. Put all the colors you wish to keep on one side. Place the light green and the dark green at the top and bottom respectively of the other row. Then do a spread between these two greens.

Copy is another tool which can be used to move colors around the two rows. Click on the color you want to duplicate, then click on the Copy box, and then click on the spot where you wish to make a

copy of the color. Be careful not to erase a color you may want to use later.

The *Undo* in the *Palette* Window functionally resembles the *Undo* on the *Tools* Window. It allows you to back up a step. If you have just copied red over a nice shade of blue by mistake, click on the *Undo* box to correct it.

If all the colors are the way you want them and you are ready to go back to painting and drawing use the *OK* box. The *Palette* Window will disappear and your new colors will be ready to use.

The *Cancel* box is similar to the *Undo* Tool. If you change your mind about the editing you have done on the palette, it allows you to return to your original colors. ***Paint 2000*** will forget all the color changes you have made, and the *Palette* Window will be closed.

Menus

Project Menu

Load Picture

This item allows you to bring a picture onto the screen that has been previously saved on disk. A *File* requester will open and show you a list of everything that is stored on the default disk drive. (The default drive is the drive from which you started the *Paint 2000* program). Not everything in this list is a picture file, but only a picture can be loaded. Pictures often have names that end with the letters ".PIC"; for example "Fish.PIC". If you have more than one disk drive you can select pictures from either drive by clicking on the appropriate box. Pictures can be in IFF format (Amiga standard) or GIF format (MS-DOS standard). If you change your mind and decide not to load a picture, click on the *Cancel* box to return to *Paint 2000*.

Project	
Load Picture	 L
Save IFF Picture	 S
Save GIF Picture	
Print	 P
Change Text Font	 F
Show Tool Window	 T
Show Color Window	 C
Reset Palette	
WorkBench	
About	 V
Quit	 Q

Save IFF Picture

This menu item saves your current picture onto a disk, using the Amiga-standard IFF format. When you select this item a *File* requester box, similar to the *Load Picture* requester, will appear. It is wise to name your pictures ending with the word ".PIC", i.e.

Fish.PIC. This helps you distinguish pictures from other types of files, when reviewing your disks at a later date.

Save GIF Picture

This item is the same as the one above, but it saves the picture in the GIF format, which is used on MS-DOS computers.

Print

Prints the current picture.

Change Text Font

This item allows you to change the font of the text used in your pictures. Select this item and a list of the currently available fonts is displayed. Most fonts will have more than one entry in the list, with numbers after each entry. These numbers refer to the different sizes in which the font is available. Select a font and size, then click on the *OK* gadget. The *Cancel* gadget closes the requester without changing the current font. Any text subsequently added to your picture using the Text Mode Tool will be displayed in the new font. This will not change text that you have already placed on the screen.

Screen Format

Brings up a requester allowing you to select different screen resolutions and numbers of available colors.

Show Tool Window

Use this option to reopen the tool window on the screen.

Show Color Window

Use this option to reopen the color window on the screen.

Reset Palette

Resets the color palette to be the default one.

Workbench

Use this option if you continually get "not enough memory" messages. *Paint 2000* will attempt to shut down WorkBench, and make use of the memory that becomes available. This menu item will only work if *Paint 2000* was started from Workbench. When you exit *Paint 2000*, WorkBench will be reopened automatically. If you only have 512K memory, Workbench is automatically closed for you.

About

This menu option displays the current version of *Paint 2000*.

Quit

Exits *Paint 2000*.